

Work Order ID 62763



Page 1

Thursday, October 07, 2010 3:13:00 PM

Item ID: D206-642-541

Accept



Setup Start



Revision ID:

Stop



Item Name: Replacement Skidtube

Start Date: 10/7/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 10/15/2010 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan:

Date: 10/10/07 Tooling:

Date:

Run Start



QC:

Date: SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3274	D								
IIN-D206-642	Rev M								

100

0.00



DOCUMENT CONTROL

DC

0.00

Document Control

Memo

Photocopy bluefile & type labels per PPP D206-642-541

CHG003

N/A Col 10/12/13

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Page 2

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

110



Skidtubes

0.00

Skidtubes

Memo

0.00

****VERIFY AND INSPECT THE MATERIAL PRIOR TO USE****

1- Bend FWD end of tube using bend prog D3274 FWD and foilo 10 as per dwg D3274, cut fwd end of tube with saw table setup D3274.

2- remove fwd indexing ridge as per dwg D3274. Prepare for welding

3- weld fwd cap as per dwg D3274 and QSI004

AR Aluminum Rod Batch: M111305/M115778

4- grind fwd cap weld on top surface only

5- Cut AFT end of tube at 170.9" as per dwg D3274 and deburr end.

6-Drill Aft cap pilot hole using DT8025

7 -Cleco DT8025 in position and install pilot hole drill Jig DT8742A,B,C,D.
Drill 3/16" pilot holes as per Dwg D3274

8 -Remove inner indexing ridge on aft end of skidtube as per Dwg D3274 scribe batch #

9 -Open aft end cap holes to Ø0.208" as per Dwg D3274. Deburr aft end.

*DPB 10-10-13**BE 10/10/14**BE 10/10/14**M111305/M115778**BE 10/10/14**10-10-18*

o

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Page 3

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Tooling:

Date:

Run

Start



QC:

Date:

SPC (Y/N):

Date:

Stop

**Sequence ID/
Work Center ID****Operation
Description****Set Up/
Run Hours****Tool ID****Tool #****Plan
Code****Accept
Qty****Reject
Qty****Reject
Number****Insp.
Stamp**

120



Chemical Conversion Coat per QSI005 4.1

0.00

*X1**BB
10/10/10*

HandFinish

Memo

0.00

Hand Finishing

130



QC3- Inspect Part Finish

0.00

QC

Memo

0.00

Quality Control

140



QC5- Inspect part completeness to step on W/O

0.00

QC

Memo

0.00

Quality Control

*10/10/10**10/10/10*

W/O:		WORK ORDER CHANGES					
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Page 4

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Reference:

Run

Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Skidtubes	0.00							
	Memo	0.00							
	1-Open Ø0.313" and 0.375" crossbolt spacer holes using DT8743 as per Dwg D3274								
	2-Deburr crossbolt spacer holes as per Dwg D3274 and blow out chips from inside the tube								
	3-Bond web in place as per Dwg D3274 & QSI 015. A/R <input type="checkbox"/> Sikaflex-291 <input checked="" type="checkbox"/> Sikaflex expire date: <u>11/01/30</u> <input type="checkbox"/> Start: <u>10/11/04</u> <input type="checkbox"/> Time: <u>9:00 AM</u> <input type="checkbox"/> Finish: <u>10/11/04</u> <input type="checkbox"/> Time: <u>12:00 PM</u> <input type="checkbox"/> (Adhere for 12 hours)								
160	QC5- Inspect part completeness to step on W/O	0.00							
	Memo	0.00							
QC									
Quality Control									

10-10-19
X BB

10/11/04

Sidler

SD

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Page 5

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Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

170



Skidtubes

0.00



10-11-8

Memo

0.00

1-Bend AFT end of tube using bend prog. D3274 AFT as per dwg D3274. Install drop pins in crossbolt spacer holes to maintain web position.

2- DRILL PILOT HOLES FOR WEARPLATES USING D3274-1T2
OPEN HOLES TO .297". Deburr3-DRILL TOE PIN HOLE .640" DIA AS PER DWG USING DT8935 FWD
END OF TUBE
DEBURR INSIDE OF HOLE AS NECESSARY (DO NOT ENLARGE HOLES)
REMOVE ANY FOREIGN OBJECTS INSIDE OF TUBES

BB 10/11/08

4- Countersink crossbolt spacer holes as per Dwg D3274

5- prepare for welding

180



QC5- Inspect part completeness to step on W/O

0.00

 $L^{\circ} = 45^{\circ}$

QC

Memo

0.00

 $h_2 = 2.9125"$

S101n108



Quality Control

W/O:		WORK ORDER CHANGES					
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Thursday, October 07, 2010 3:13:00 PM



Page 6

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Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

190



Skidtubes

0.00

Skidtubes

Memo 0.00
 1-Insert D2649 & D3275-1 crossbolt spacers. Weld as per QSI 004 and Dwg D3274. Remember to back drill each hole before welding the other side. Use aluminum rod
 A/R Aluminum Rod m11k385

BE 10/11/10

3-Grind cross bolt welds flush as per Dwg D3274.

BE 10/11/10

4-Counterbore 5/16" x 0.750" deep as per Dwg D3274 and deburr.

BE 10/11/10

200



QC5- Inspect part completeness to step on W/O

0.00

QC

Memo

0.00

Quality Control

*10/11/10**10/11/10*

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Thursday, October 07, 2010 3:13:00 PM



Page 7

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Customer:

Reference:

Approvals: Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start



QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

Sequence ID/
Work Center ID

210



QC

Quality Control

Operation
Description

QC10- Inspect visual per QSI004- ground welds

Set Up/
Run Hours

0.00

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

8/10/10

A

220



HandFinish

Hand Finishing

Pressure Wash per QSI005 4.3

0.00

=> M 10/10/10

L Q

Memo

0.00

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch

230



Powdercoat

Powder Coating

White Gloss(Ref.4.3.5.1) per QSI005 4.3-Alum

0.00

M115291.

Memo

0.00

START TIME: 1:25

OVEN TEMPERATURE: 3200

FINISH TIME: 1:55

1 BL 10-11-10.

W/O:		WORK ORDER CHANGES					
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Page 8

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Customer:

Reference:

Run

Start



Approvals: Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240 	QC3- Inspect Part Finish QC Quality Control	0.00 0.00	27	10/01/10	10/01/10	1	0		
250 	HandFinishing HandFinish Hand Finishing	0.00 0.00	27	10/01/10	10/01/10	1	0		
	 1-Install Nut Plate as per Dwg D3274. Apply LPS-3 to Nut Plate and rivets. A/R <input type="checkbox"/> A/LPS-3 <input checked="" type="checkbox"/> <u>1109956</u>								
	 2-Install inserts as per Dwg D3274. Use a drop of Sikaflex inside insert holes a A/R <input type="checkbox"/> Sikaflex-291 <input checked="" type="checkbox"/> <u>1115114</u> Sikaflex expire date: <input checked="" type="checkbox"/> <u>11101</u>								
260 	QC5- Inspect part completeness to step on W/O QC Quality Control	0.00 0.00	27	10/01/10	10/01/10	1	0		

W/O:		WORK ORDER CHANGES					
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Page 9

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Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

270



HAND FINISHING RESOURCE #1

0.00

=) M

10/11/16

HandFinish

Memo

0.00

Hand Finishing

✓ 1-Install wearpads & gaskets as per Dwg D3274.

✓ 2-Install ring as per Dwg D3274
A/R Sikaflex-291 10/11/14
Sikaflex expire date: 10/01

✓ 3-Inspect for foreign objects as per QSI 024

✓ 4-Spray inside of tube on both sides of web with LPS-3
A/R LPS-3 Batch: N/A✓ 5-Install Aft Cap and seal with Sikaflex. Clean excess adhesive.
A/R Sikaflex-291 10/11/14
Sikaflex expire date: 10/01

280



QC5- Inspect part completeness to step on W/O

0.00

S. Sulka

QC

Memo

0.00

Quality Control

(40)

W/O:		WORK ORDER CHANGES					
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Page 10

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Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

290

Identify as per dwg & Stock Location:

0.00



Packaging

Memo

PP 6227

0.00

300

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

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Picklist Print

• Thursday, October 07, 2010 3:13:05 PM

Page 1

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Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 10/7/2010

Required Date: 10/15/2010

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:B 05.09.23 Revised per D206-642 Rev. J KJ/JLM
IPP Rev:C 07-02-23 Added SS Wearplates & Gaskets JLM
IPP Rev:D 07-12-06 replace NAS1515H3L to D3672-1 DD
IPP Rev:E 08-04-17 as per PAR 08-015 DD verified by:EC
IPP Rev:F 08-06-02 add comment DD verified by:EC
IPP Rev:G 08-10-09 revise details DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2600-1-190		Manufactured	No			110	Each	73.0000	1	1			

Extrusion Round 3" 206

D3285-1

Cap

D3282-041

Float Web (206L/407)

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG	2	
59886	2	
60931		
	1	BB 10/10/04

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Thursday, October 07, 2010 3:13:05 PM

Page 2

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8

Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 10/7/2010

Required Date: 10/15/2010

Start Qty: 1.00

Required Qty: 1.00

D2649



Manufactured

No

190

Each

65.0000

1

1



Cross Bolt Spacer

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG	65	
58545	2	
60652	4	
61496	59	

863359(2) BE 10/11/10

D3275-1



Manufactured

No

190

Each

216.0000

12

12



Crossbolt Spacer

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG	216	
53453	8	
61646	102	
62399	106	

1 13

12

BE 10/11/10

CR3212-4-03



Purchased

No

250

Each

1,888.000



2

12

ML 10/11/16

Cherry Rivet

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST311	1888	
111359	5	
112314	2	
114436	448	
114450	71	
114859	1362	

12

ML

10/11/16

D3415-041



Manufactured

No

250

Each

52.0000



1

ML

10/11/16

Nut Plate

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST056	52	
33842	52	

X1

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Thursday, October 07, 2010 3:13:05 PM

Page 3

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8

Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 10/7/2010

Required Date: 10/15/2010

Start Qty: 1.00

Required Qty: 1.00

CCR264SS3-3



Purchased

No

250

Each

446.0000

2



Cherry Rivet

10/11/16

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST311	446	
112314	4	
113539	44	
<u>113973</u>	398	

ALS4-1032-130



Purchased

No

250

Each

1,147.000

78



Insert

10/11/16

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
PKG11	1098	
114723	1098	
ST282	10	1115911
110511	10	
ST381	39	
<u>114654</u>	39	

D3536-15



Manufactured

No

270

Each

21.0000

1



Gasket

10/11/16

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP	9	
56055	1	
60875	8	
FP11	12	
59238	1	
<u>62459</u>	11	

X1

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Thursday, October 07, 2010 3:13:05 PM

Page 4

Work Order ID: 62763



Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 10/7/2010

Required Date: 10/15/2010

Start Qty: 1.00

Required Qty: 1.00

D3536-23



Gasket

Manufactured No

270

Each

8.0000

1

1

M 1011116

Location

Loc Qty

Loc Code

FP011

8

B63238

X1

61237

8

D3536-35



Gasket

Manufactured No

270

Each

23.0000

1

1

M 1011116

Location

Loc Qty

Loc Code

FP012

23

X1

58683

1

61692

10

62462

12

D3536-39



Gasket

Manufactured No

270

Each

12.0000

1

1

M 1011116

Location

Loc Qty

Loc Code

FP12

12

X1

58215

1

58571

11

D3535-15



Wearshoe

Manufactured No

270

Each

12.0000

1

1

M 1011116

Location

Loc Qty

Loc Code

FP18

12

B62707

X1

61241

6

62241

6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Thursday, October 07, 2010 3:13:05 PM

Page 5

Work Order ID: 62763



8

Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 10/7/2010

Required Date: 10/15/2010

Start Qty: 1.00

Required Qty: 1.00

D3535-35



Manufactured No

270

Each

8.0000

1

1



10/11/16

Wearshoe

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP018	8	BC02461
	8	

D3535-39



Manufactured No

270

Each

17.0000

1



10/11/16

Wearshoe

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP18	17	
58214	1	
60233	16	

D3535-23



Manufactured No

270

Each

19.0000

1



10/11/16

Wearshoe

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP	7	
61830	7	
FP021	20	
60231	11	

D3537-3



Manufactured No

270

Each

6.0000

1



10/11/16

Wearpad

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP17	6	BC1674
60866	6	



10/11/16

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Thursday, October 07, 2010 3:13:05 PM

Page 6

Work Order ID: 62763



Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 10/7/2010

Required Date: 10/15/2010

Start Qty: 1.00

Required Qty: 1.00

D3537-1



Manufactured

No

270

Each

14.0000

9

9



HL 101116

Wearpad

	<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP	55465	1	BC6T313
		1	X9
FP017	61986	6	
	57713	6	
FP17	60491	7	
	61640	3	
		3	
		1	

AN960C10L

NAS1149C0332 Purchased

R

No

270

Each

29.0000

80

80

washer



AN115832



X80 HL 101116

AN960C416

NAS1149C0463 Purchased

R

No

270

Each

100.0000

1

1

washer



	<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST245	107534	29	
		29	
ST346	100993	100	
		100	

X115358



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Thursday, October 07, 2010 3:13:05 PM

Page 7

Work Order ID: 62763



Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 10/7/2010

Required Date: 10/15/2010

Start Qty: 1.00

Required Qty: 1.00

D3672-1



Manufactured

No

270

Each

855.0000

2

2



44 10/11/16

Phenolic Washer

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST077	855	
42329	150	
<u>52505</u>	705	XZ

AN3C4A



Purchased

No

270

Each

1,650.000

80

80



44 10/11/16

BOLT

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST245	20	
110139	20	
ST303	42	
115438	42	
ST350	1588	
114108	14	
114416	12	
114523	2	
115300	560	
<u>115589</u>	1000	X80

AN4C5A



Purchased

No

270

Each

489.0000

1

1



44 10/11/16

BOLT

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST346	489	
110552	4	
<u>112243</u>	485	X1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Thursday, October 07, 2010 3:13:05 PM

Page 8

Work Order ID: 62763



Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 10/7/2010

Required Date: 10/15/2010

Start Qty: 1.00

Required Qty: 1.00

D2646



Manufactured No

270

Each

44.0000

1

1



10/10/10

Aft Cap

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP-4	39	
<u>57332</u>	39	X
fp5	1	
61752	1	
FP6	4	
52663	4	

D3413-1



Manufactured No

270

Each

31.0000

1

1



10/10/10

Ring

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST473	31	
51586	1	
53446	15	
<u>61322</u>	15	X

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART

DESIGN CP	DRAWN BY PH	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED ✓	APPROVED ✓	DRAWING NO. D3274	REV. D SHEET 1 OF 4
DATE 06.12.19		TITLE SKIDTUBE ASSEMBLY	SCALE NTS
A	04.03.15	NEW ISSUE	
B	04.08.09	MOVE SADDLE HOLE: 42.14 WAS 42.76	
C	05.03.16	ADD -043; NEW INSERTS	
D	06.12.19	NEW INSERTS, SS WEARSHOE + GASKET	

RELEASED

07.02.12 ✓

DEO ATTACHED

Qty -041	Qty -043	Part Number	Description
X		D3274-041	SKIDTUBE ASSEMBLY
	X	D3274-043	SKIDTUBE ASSEMBLY
1	1	D2600-1-240	EXTRUSION
1	1	D2646	AFT CAP
12	12	D2649	CROSS BOLT SPACER
12	37	D3275-1	CROSS BOLT SPACER
1	1	D3282-041	FLOAT WEB
1	1	D3285-1	CAP
1	1	D3413-1	RING
1	1	D3415-041	NUT PLATE
1	1	D3535-15	WEARSHOE
1	1	D3535-23	WEARSHOE
1	1	D3535-35	WEARSHOE
1	1	D3535-39	WEARSHOE
1	1	D3536-15	GASKET
1	1	D3536-23	GASKET
1	1	D3536-35	GASKET
1	1	D3536-39	GASKET
9	9	D3537-1	WEARPAD
1	1	D3537-3	WEARPAD
78	78	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, AELS-1032-130)
80	80	AN3C4A	BOLT
1	1	AN4C5A	BOLT
1	1	AN960C416	WASHER
80	80	AN960C10L	WASHER
2	2	CCR264SS3-3	RIVET
2	2	CR3212-4-03	RIVET
2	2	NAS1515H3L	WASHER

GENERAL NOTES:

1. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
2. DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 7 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
3. ALL HOLES DRILLED ON CENTERLINES.
4. BOND D3282-041 FLOAT WEB INTO D3274-1/-3 OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 015. ENSURE HOLES LINE-UP.
5. WELDING TO BE DONE PER DART QSI 004.
6. FINISH: - ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1
- POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
7. DRILL $\varnothing 0.297$ HOLES FOR ALS7-1032-130 INSERTS USING DT3274-1T2 BEFORE FINISH. INSTALL ALS7-1032-130 INSERTS AFTER FINISH. SEAL WEARSHOE BOLTS WITH SIKAFLEX -241-291.
8. SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.

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W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

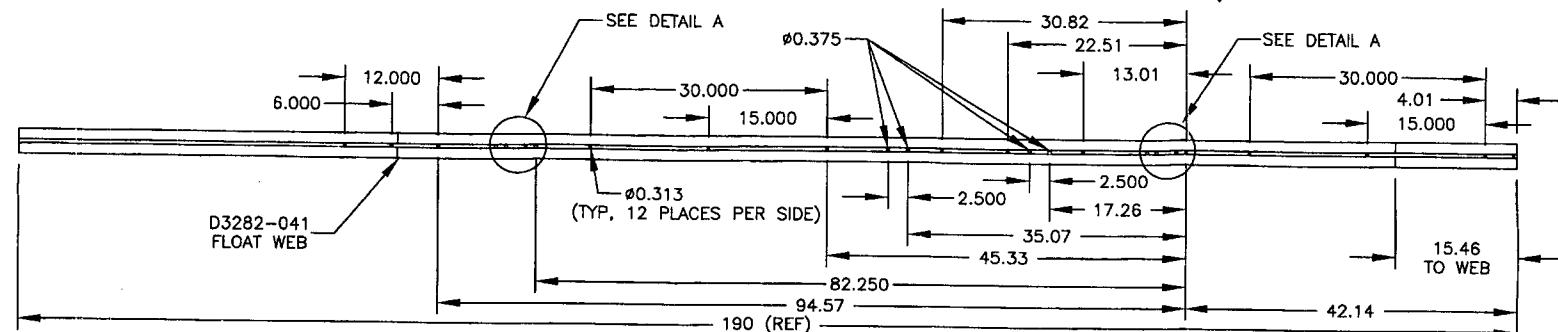
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

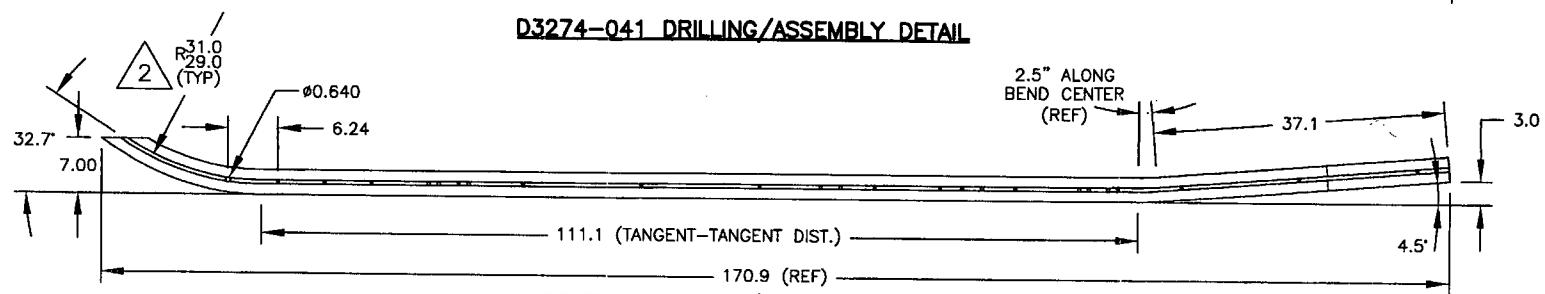
NOTE: Date & initial all entries

DET ATTACHED

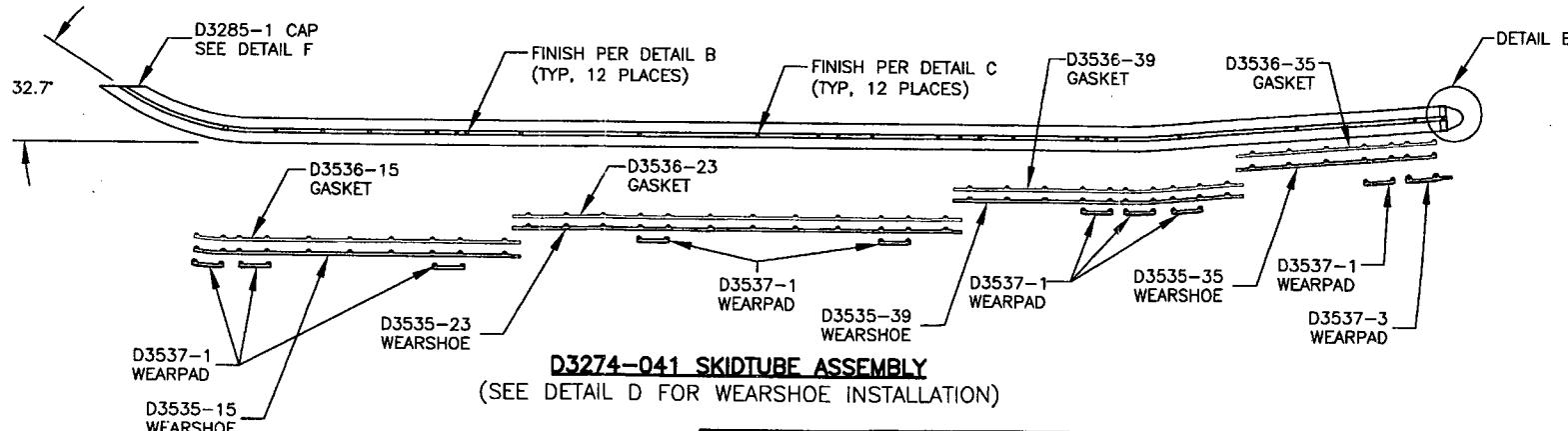
Wb WMB



D3274-041 DRILLING/ASSEMBLY DETAIL



D3274-041 BEND/DRILLING DETAIL



D3274-041 SKIDTUBE ASSEMBLY
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

RELEASED

07.02.12

DESIGN	DRAWN BY	DART		DART AEROSPACE USA, INC.
CP	PH			PORT HADLOCK, WA
CHECKED	APPROVED			DRAWING NO.
				D3274
DATE				REV. D
06.12.19				SHEET 2 OF 4
				TITLE
				SKIDTUBE ASSEMBLY
				SCALE
				1:15

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

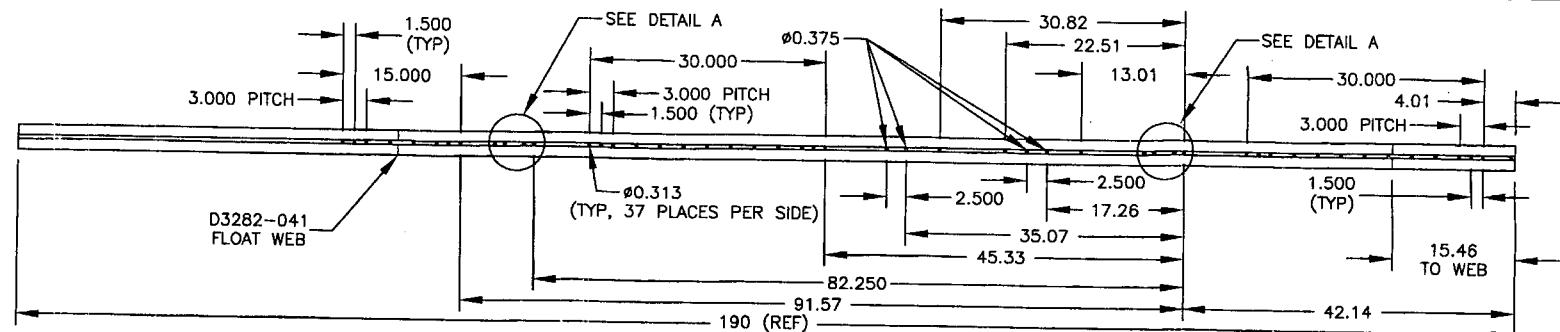
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

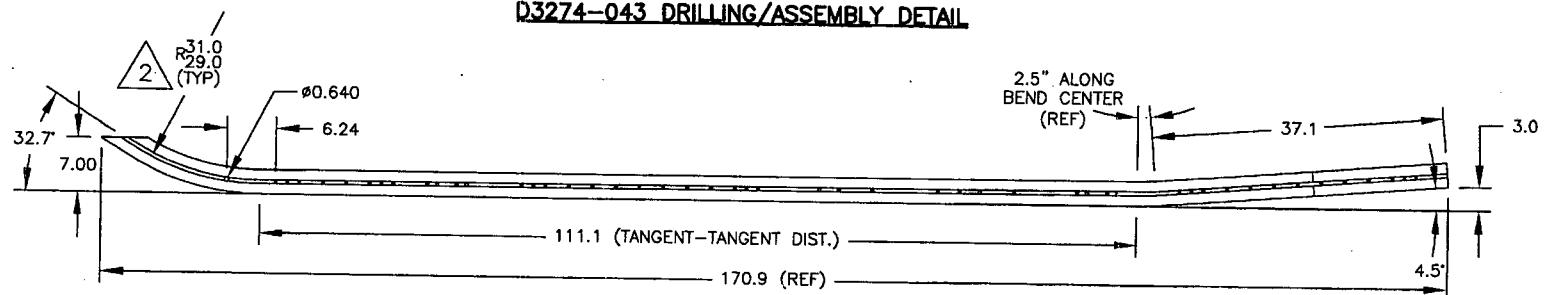
NOTE: Date & initial all entries

DET ATTACHED

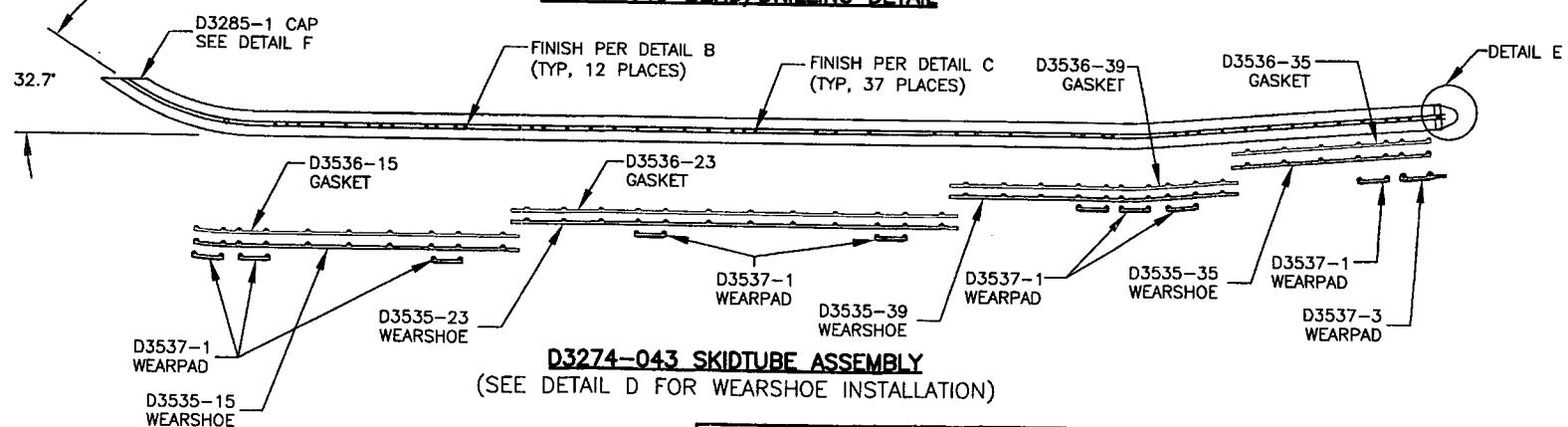
WB 627163



D3274-043 DRILLING/ASSEMBLY DETAIL



D3274-043 BEND/DRILLING DETAIL



D3274-043 SKIDTUBE ASSEMBLY
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

RELEASED

67-02-12

DESIGN	DRAWN BY	DART		DART AEROSPACE USA, INC.
CHECKED	APPROVED			PORT HADLOCK, WA
		REV. D		
		DRAWING NO.		
		D3274		SHEET 3 OF 4
DATE		TITLE		SCALE
06.12.19		SKIDTUBE ASSEMBLY		1:15

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

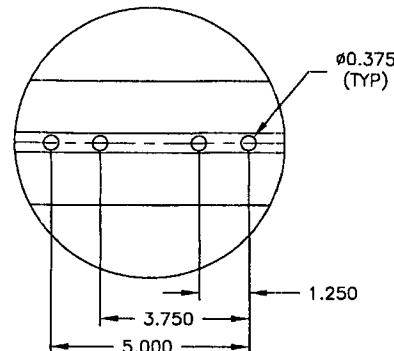
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

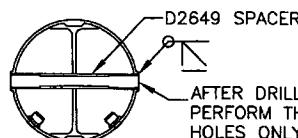
NOTE: Date & initial all entries

WB U2743

DETAIL A: DRILL DETAIL

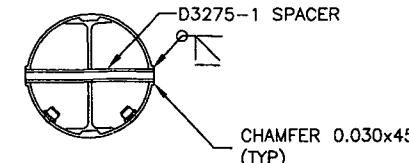


DETAIL B
FOR $\phi 0.375$ HOLES ONLY



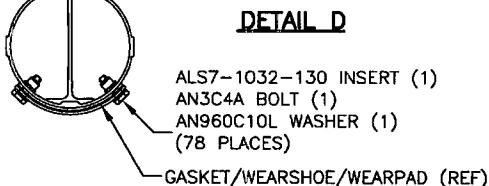
AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR $\phi 0.375$
HOLES ONLY:
1. CHAMFER HOLE $0.030 \times 45^\circ$
2. INSERT D2649 SPACER
3. WELD INTO PLACE AND GRIND FLUSH
4. C'BORE TO $\phi 0.313 \times 0.75$ DEEP

DETAIL C
FOR $\phi 0.313$ HOLES ONLY



CHAMFER $0.030 \times 45^\circ$
(TYP)

DETAIL D

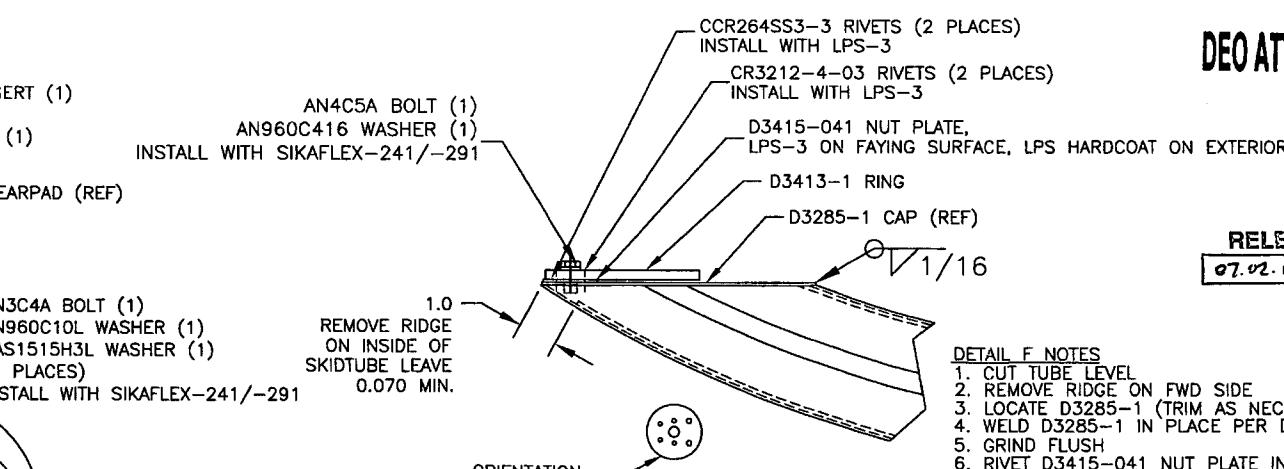


ALS7-1032-130 INSERT (1)
AN3C4A BOLT (1)
AN960C10L WASHER (1)
(78 PLACES)

GASKET/WEARSHOE/WEARPAD (REF)

AN4C5A BOLT (1)
AN960C416 WASHER (1)
INSTALL WITH SIKAFLEX-241/-291

DETAIL F: END FINISHING DETAIL



DEO ATTACHED

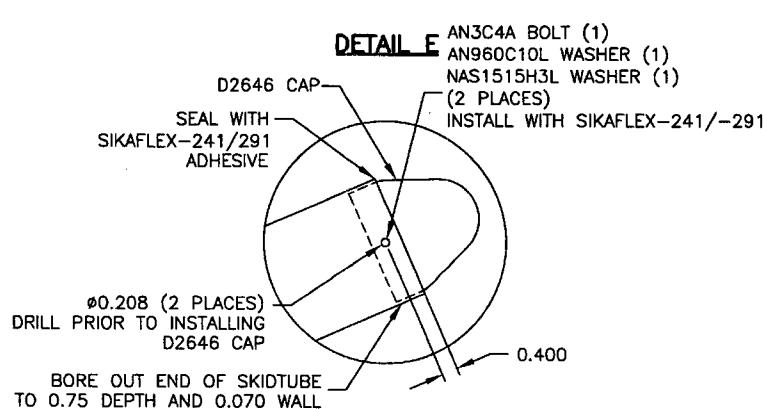
RELEASED

07.02.12

DETAIL F NOTES

1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D3285-1 (TRIM AS NECESSARY)
4. WELD D3285-1 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D3415-041 NUT PLATE IN PLACE

NOTE: MASK THREADS IN D3415-041
PRIOR TO FINISH



$\phi 0.208$ (2 PLACES)
DRILL PRIOR TO INSTALLING
D2646 CAP

BORE OUT END OF SKIDTUBE
TO 0.75 DEPTH AND 0.070 WALL

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DESIGN	DRAWN BY	DART	DART AEROSPACE USA, INC. PORT HADLOCK, WA
CP	PH		
CHECKED	APPROVED	D3274	REV. D SHEET 4 OF 4
DATE	TITLE	06.12.19	SCALE 1:3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DRAWING NO. D3274	TITLE SKIDTUBE ASSEMBLY	REV. D	DART AEROSPACE USA, INC ENGINEERING ORDER	D.E.O. NO. D3274-D-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN CP	CHECKED		MFG. APPR. M	APPROVED M	DE APPR. M	
DATE 09.06.17	DATE 09.06.23		DATE 09/06/23	DATE 09/06/23	DATE 09.06.23	

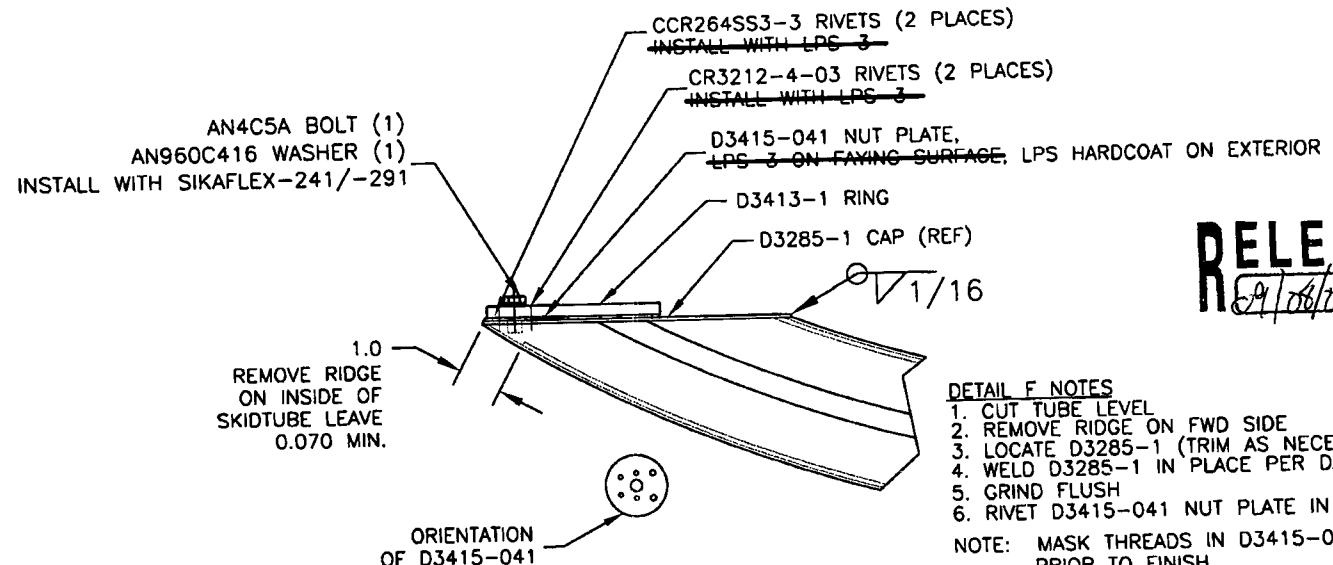
LPS-3 IS NO LONGER USED DURING ASSEMBLY OF SKIDTUBE.

AMEND NOTE 8: "~~SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES 'LPS 3' AFTER FINISH AND INSTALLATION OF INSERTS.~~
~~COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES 'LPS PROCYON' AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF~~
~~POWDER COATING WITH MEK DEGREASER.~~"

AMEND DETAIL F AS SHOWN:

W/ B LPS-3

DETAIL F: END FINISHING DETAIL



DETAIL F NOTES

1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D3285-1 (TRIM AS NECESSARY)
4. WELD D3285-1 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D3415-041 NUT PLATE IN PLACE

NOTE: MASK THREADS IN D3415-041
PRIOR TO FINISH

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 241

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: 622508
Part number: D206-L42-541
Description: 206 skid
Welding Process: Tig Mig
Base materiel: Aluminum
Current: AC DC

TEST REQUIREMENTS AND RESULTS

Visual: pass fail
Penetration: pass fail

UNACCEPTABLE

Cracks: pass fail
Undercut: pass fail
Pin holes: pass fail
Overlap (cold lap) pass fail
Porosity (surface): pass fail
Coloration: pass fail

Qualifier RD Date of Test Coupon 10-09-30

Welder Barclay Elliott Date of Test Coupon 10-09-30

The above named individual is qualified in accordance with AWS D17.1.2001 to weld.